City of

Pretreatment Program Annual Inspection Form

DATE: July 18, 2005

Start Time: 0830

End Time: 1102

INDUSTRY: Milbank Manufacturing Company Inc.

TELEPHONE NUMBER: (765) 452-5694

PLANT MANAGER: Tom Galbraith

INDUSTRY CONTACT/TITLE: Larry Sterling, Technical Service Manager

CONTACT TELEPHONE/FAX NUMBER: (765) 452-5694 ext.246 / (765) 452-8361

INSPECTION COMPLETED BY: Rodger Fain Jr. and Michael Mannion

PARTICIPANTS

NAME	TITLE	PHONE NUMBER
Richard Tyler(Last Day)	Manufacturing Assistant	(765) 452-5694
Larry Sterling	Technical Service Manager	(765) 452-5694 ext. 246
David Kranz	Waste Water Operator	(765) 452-5694 (765) 860-1391 (cell)
Michael Mannion	Pretreatment Inspector	(765) 457-5509
Rodger Fain Jr.	Pretreatment Coordinator	(765) 457-5509

FACILITY INFORMATION

Number of Employees: 136 hourly / 16 salary = 152

Start Time: 1st Shift 7am-3pm 2nd Shift 3pm-11pm 3rd Shift 11pm-7am

Inspection Type: Scheduled Yes Demand

Do You Have a Slug Control Plan? No

Do you have a Spill Prevention Control & Countermeasure Plan? Yes, submit with Semi-annual report.

Categorical Industrial User: Yes **40 CFR:** 433

Non – Categorical Industrial User: Not Applicable

Production Rate:
500/day

Are Changes To The Plant/Facility Planned? No

Has Production Changed Since The Last Inspection? No

Identify Pollution Prevention measures undertaken since last inspection:

- None at this time

Water / Wastewater

Source of Intake Water:

City IAWC Well N/A other N/A

Discharges:

POTW IAWC Monthly water usage average is 80,250 gallons (Jan-May 2005) This IAWC billing amount is not consistent with flow meter data submitted on the monthly IWPMR.

NPDES N/A

Irrigation N/A

Into Product N/A

Evaporation Not measured

Has the Wastewater Flow Through the Facility Changed? No

Discharges to Sewer at Sample Sites

Sample Site #	1	2	
Industrial Process		X	
Cooling Tower			
Non-Contact Cooling			
Boiler Blow-down			
Sanitary	X		
Other			

Boiler Additives: The facility does not have boilers.

Cooling Tower Additives: The facility does not have cooling towers

Is Flow Measurement Used? Yes, ISCO 4404 and Siemens OCM III Flow meters

Date of "Each" Flow Meter Calibration:

- Siemens OCM III. 8" Palmer Bowlus Flume. February 25, 2005 by Gripp Inc.
- ISCO 4404. Sept. 01, 2004 by Gripp Inc.

MANUFACTURING AREA

Do Floor Drains Lead Directly to City Collection System?

- All floor drains have been sealed.

Have Changes Been Made in Production, Water Flow, or Wastewater Production Since the Last Inspection? No

If Yes, Describe _____

Overall Condition

Good X
Fair _____
Poor _____

Comments: _____

PRETREATMENT AREA

Discharge Type:

Batch Yes, 1-2 discharges per week
Continuous _____
Other _____

Has There or Will There Be Any Changes to the Pretreatment System? No

Overall Condition

Good X
Fair _____
Poor _____

Comments: _____

Certified Operator:

Name: Bill Bloemer # 11406 Class: D (expires 6/30/07) (Copy on File)

Name: _____ # _____ Class: _____

INDUSTRIAL SELF MONITORING

Is Self Monitoring Required? Yes

Is Sampling Equipment Adequate? Yes, ISCO 6700 sampler

Are Calibrations performed on instrumentation? Yes, Treatment systems probes are calibrated the day pretreatment system has a discharge. And the hand held is calibrated weekly.

In-House Analysis:

In House: pH
Vendor Lab: Test America

Equipment Used: _____

Logs Kept: Yes, submit with IWPMR
Time Recorded: Yes, submit with IWPMR
Dated: Yes, submit with IWPMR
Signed: Yes, submit with IWPMR

CHEMICAL STORAGE AREAS

Overall Condition

Good X
Fair _____
Poor _____

Comments: _____

SLUDGE / HAZARDOUS WASTE STORAGE AREAS

Is Sludge Produced a Hazardous Waste? No, analyzed annually to confirm sludge is not hazardous. submit with IWPMR

Amount of Sludge Generated: 20 cubic yards per year.

Name of Disposal Facility: Waste Management

On – Site Storage: Roll-Off dumpster

Drums / Label/ Manifests: Copy of manifest, submit with IWPMR

Overall Condition

Good X
Fair _____
Poor _____

Comments: _____

Action Items/Follow up:

- None

Pretreatment Inspector Michael J. Stevenson
Date 7-26-05

TOXIC ORGANIC MANAGEMENT PLAN

HIGH CAPACITY PRODUCTS, CO.

I. Description of Facilities

A. Process Description

High Capacity Products, Co., a subsidiary of Milbank Manufacturing Co., manufactures residential electric meter enclosures. Production operations include blanking, forming, tapping and spot welding prior to cleaning, painting and final assembly.

Process wastewater is released into the sewage system from the cleaning operations as shown in Figure 1. The drains from these operations have valved sumps and are segregated from the rest of the plant system. The primary cleaning system is surrounded by a sealed retaining barrier to contain any spills or tank failures. It is designed to hold the volume of the largest tank plus fifty percent. An undrained recessed area under the secondary cleaning system provides a similiar function.

B. Identification of Toxic Organic Compounds Entering the Plant Wastewaters

1. Chemical Analysis of Released Wastewater

Samples of the process wastewater were analyzed for toxic organics under the metal finishing categorical pretreatment standards. These composite samples were taken within a two-week period representative of normal and maximum operating conditions. The samples were analyzed by gas chromatography with compound identification and quantification by mass spectrophotometer (GC/MS). EPA procedures 608 and/or 625 were followed for the GC/MS analysis.

From the analysis, one toxic organic compound was detected in the wastewater. The compound bis (2-Ethylhexyl) Phthalate was found with a concentration of 0.015 ppm. The lowest detectable concentration used for the tests was 0.010 ppm.

2. Identification of Process Chemicals Containing Detected Organic Compounds

At the present time there is uncertainty as to which chemical products contain the bis (2-Ethylhexyl) Phthalate compound. The compound is not listed on any of the material safety data sheets used in the process operations. According to water utility representatives familiar with the testing procedures, the compound is commonly detected in oil-based chemicals. Utilizing this information, control efforts will be directed at the two soluble oils currently used, specifically Amocool and Trim Sol. No other oil-based products are allowed to enter the process wastewater. The material safety data sheets for these products are enclosed as Attachment 1.

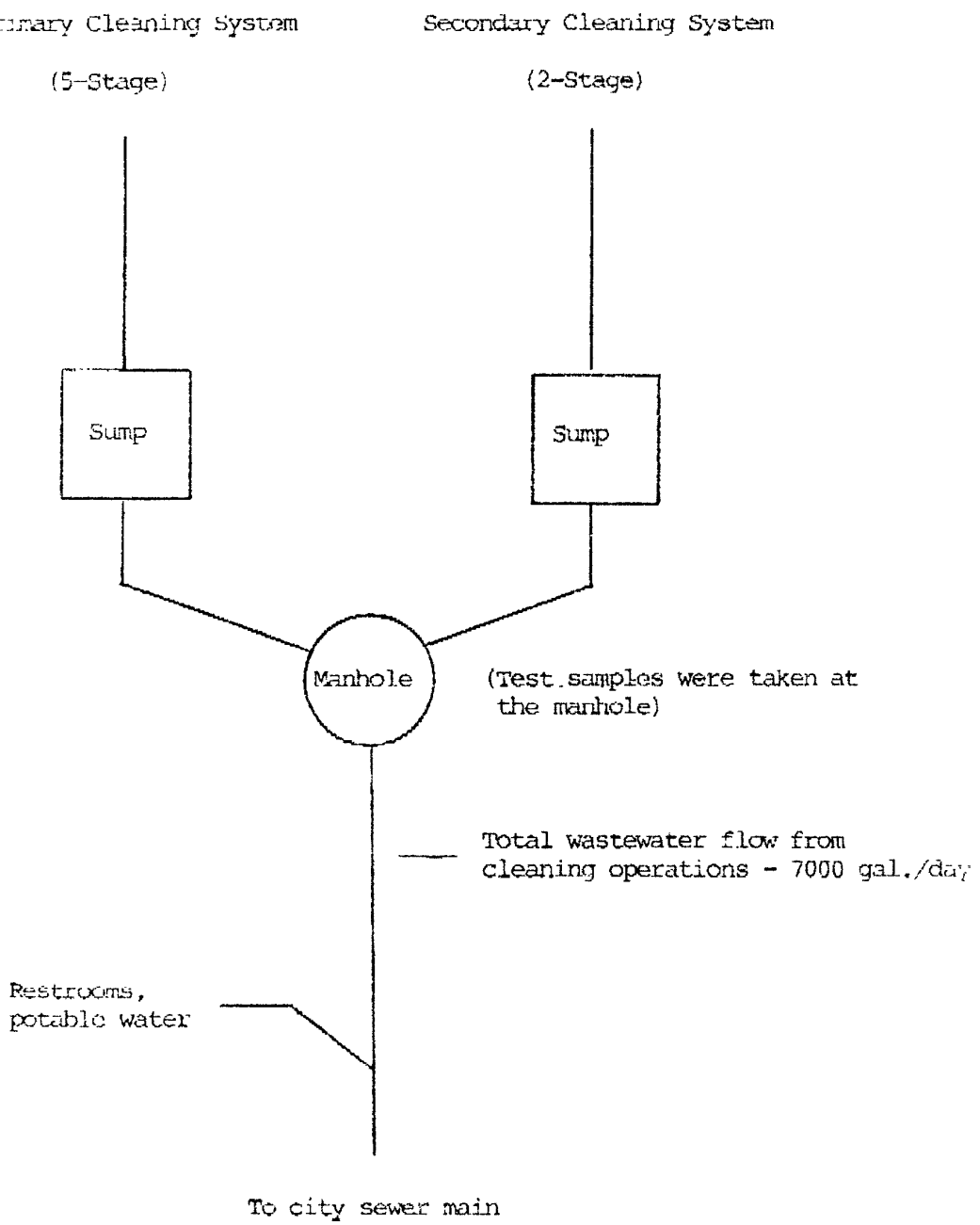


Figure 1

Wastewater Generation
High Capacity Products, Co.

3. Identification of Other Potential Sources of Toxic Organic Compounds

Cook Gray Enamel Paint and Aromatic 100 Solvent are used in a small auxiliary paint booth. Although not listed on the material safety data sheets, air contaminant tests run at the paint booth area show that the toluene and benzine compounds are present. The paint booth and storage areas are not drained, therefore presenting no possible means for the products to enter the wastewater system under normal operating conditions. Material safety data sheets for the two products and the air contaminant test results are enclosed as Attachment 2.

II. Description of Possible Control Options

A. Product Dilution

A survey of the operations that use soluble oils revealed that several were critical, requiring the oils to be full strength for the operations to function properly. Diluted oils in these operations allowed substantial rusting of processed parts. However, a significant number of operations were found to be able to utilize the soluble oils in diluted strength. Also revealed in the survey was the lack of a definite set of procedures for dilution.

It is believed that additional monitoring and the development of standard dilution procedures would reduce the amount of any toxic organic compounds released into the wastewater.

B. Product Substitution

Substitution of the soluble oils currently used with oils known to be free of toxic organics would certainly provide total control. With the concentration of the discovered toxic organic barely detectable, this option would not be practical to use. Should the dilution control efforts fail, however, product substitution will be the next option pursued.

III. Toxic Organic Management Plan

In view of the current operation methods and the above analyses, High Capacity Products, Co. believes that all of its toxic organic pollutant dischargos can be controlled through a toxic organic management plan in lieu of routine toxic organic monitoring.

A. Soluble Oil Dilution

Soluble oils utilized in the plant operations will be diluted to the minimum concentration that will still allow proper processing. Procedures for dilution will be developed and enforced by engineering and production personnel.

B. Chemical Product Storage

All paints, solvents and soluble oils will continue to be stored in their designated storage areas. These storage areas have no floor drains in or near them whereas a spill or leak could enter the plant drain system.

C. Used Solvent Disposal

Used solvents are collected in 55 gallon drums, sealed and transported to Diaz Refinery. Diaz Refinery is a licensed waste treatment facility.

D. Waste Solids Disposal

Any process precipates or solids that accumulate during operations are collected during scheduled clean-out procedures, drummed and sealed. They are transported to the corporate manufacturing plant where disposal is in accordance with the plant's landfill waste disposal permits.

E. Employee Training

All personnel involved in painting and cleaning activities recieve instruction in the proper handling and disposal of the chemical products used. Such instruction is given by the foreman whose department includes the regulated activities.

All personnel working in these activities are familiar with this toxic organic management plan and will follow the procedures established to prevent concentrated toxic organics from entering the wastewater system.

F. Inspections

1. The painting and cleaning area will be inspected routinely by the department foreman to insure proper cleaning procedures and adherence to this toxic organic management plan.

2. The solvent, paint and soluble oil storage areas will be inspected routinely by production personnel to assure that no leaks or spills are present.

G. Implementation

All provisions of this plan will be fully implemented by January 1, 1987.

IV. Certification

"Based on my inquiry of the persons directly responsible for managing compliance with the TTO limitations, I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last report. I further certify that this facility is implementing this toxic organic pollutant management plan submitted to the Control Authority on December 23, 1986."

_____ _____

Date Official

_____

Title

E/H-36/#9 (Revised 3/17/86)

40 CFR PART 433 Attachment A

METAL FINISHING

CATEGORICAL PRETREATMENT STANDARDS FOR INDIRECT DISCHARGERS

This summary provides industries in the Metal Finishing category and Publicly Owned Treatment Works (POTWs) with the information necessary to determine compliance with standards for this industrial category. The Metal Finishing standards were established by the Environmental Protection Agency in Part 433 of Title 40 of the Code of Federal Regulations (40 CFR 433). This summary is not intended to substitute for the regulations published in the Code of Federal Regulations or the Federal Register. For specific information, refer to the Federal Register citations given below.

Type of Rule	Date	Federal Register Citation
Proposed Rule	August 31, 1982	Vol. 47, p. 38462
Final Rule	July 15, 1983	Vol. 48, p. 32462
Amendments	September 15, 1983	Vol. 48, p. 41409
	September 26, 1983	Vol. 48, p. 43680
	September 4, 1984	Vol. 49, p. 34823
Effective Date	August 29, 1983	
Baseline Monitoring Report (BMR) Due Date	February 25, 1984	
Compliance Dates:		

- Pretreatment Standards for Existing Sources (PSES) for the interim level of Total Toxic Organics (TTO): June 30, 1984 (July 10, 1985, for plants also subject to the Iron and Steel categorical standards in 40 CFR 420)*
- Pretreatment Standards for Existing Sources (PSES) for all Pollutants, including Metals, Cyanide, and the more stringent level of TTO: February 15, 1986
- Pretreatment Standards for New Sources (PSNS): From commencement of discharge

*This interim limit on TTO of 4.57 mg/l has been established based on management practices only, prior to the installation of pretreatment equipment or changes in pretreatment facilities.

SUBCATEGORIES

There are no subcategories. Limits are concentration-based and can be applied to all metal finishing process discharges.

REGULATED PROCESSES

The Metal Finishing standards apply to firms that are engaged in electroplating, electroless plating, anodizing, coating, chemical etching, or printed circuit board manufacturing. If a firm performs any of these operations, then its discharges from the following 40 unit processes are also regulated by the Metal Finishing standards.

1. Cleaning
2. Machining
3. Grinding
4. Polishing
5. Tumbling
6. Burnishing
7. Impact Deformation
8. Pressure Deformation
9. Shearing
10. Heat Treating
11. Thermal Cutting
12. Welding
13. Brazing
14. Soldering
15. Flame Spraying
16. Sand Blasting
17. Other Abrasive Jet Machining
18. Electric Discharge Machining
19. Electrochemical Machining
20. Electron Beam Machining
21. Laser Beam Machining
22. Plasma Arc Machining
23. Ultrasonic Machining
24. Sintering
25. Laminating
26. Hot Dip Coating
27. Sputtering
28. Vapor Plating
29. Thermal Infusion
30. Salt Bath Descaling
31. Solvent Degreasing
32. Paint Stripping
33. Painting
34. Electrostatic Painting
35. Electropainting
36. Vacuum Metalizing
37. Assembly
38. Calibration
39. Testing
40. Mechanical Plating

The Metal Finishing PSES apply in addition to the standards for firms regulated under the Electroplating category, except for job shop electroplaters* and independent printed circuit board manufacturers**. These two subcategories will continue to be regulated by existing PSES for Electroplating but are exempt from Metal Finishing PSES. Also exempt from the Metal Finishing standards are metallic platemaking and gravure cylinder preparation conducted at printing and publishing facilities. The Metal Finishing PSNS apply to all new sources regulated under the Metal Finishing and Electroplating categories.

In some cases, another categorical standard may cover discharges from a metal finishing operation. If so, the more specific standard will apply to the wastestream. For example, if a firm performs two operations, coating in preparation for painting and electroless plating in preparation for porcelain enameling, the Metal Finishing standards would apply to discharges from the coating process, while the porcelain enameling standard would apply to discharges from the second operation. When such overlaps occur, the following standards will supersede the Metal Finishing standards:

- Nonferrous Metal Smelting and Refining (40 CFR Part 421)
- Coil Coating (40 CFR Part 465)
- Porcelain Enameling (40 CFR Part 466)
- Battery Manufacturing (40 CFR Part 461)
- Iron and Steel (40 CFR Part 420)

- Metal Molding and Casting (Foundries) (40 CFR Part 464)
- Aluminum Forming (40 CFR Part 467)
- Copper Forming (40 CFR Part 468)
- Plastic Molding and Forming (40 CFR Part 463).

* A job shop as defined in 40 CFR 433.11(c) is a facility which owns not more than 50 percent (annual area basis) of the materials undergoing metal finishing.

**An independent printed circuit board manufacturer as defined in 40 CFR 433.11(d) is a facility which manufactures printed circuit boards principally for sale to other companies.

REGULATED POLLUTANTS

The pollutants regulated under the Metal Finishing standards are cadmium, chromium, copper, lead, nickel, silver, zinc, cyanide, and total toxic organics (TTO). For this category, TTO is defined in 40 CFR 433.11(e) as "the summation of all quantifiable values greater than 0.01 milligrams per liter for the following toxic organics":

acenaphthene
acrolein
acrylonitrile
benzene
benzidine
carbon tetrachloride
chlorobenzene
1,2,4-trichlorobenzene
hexachlorobenzene
1,2-dichloroethane
1,1,1-trichloroethane
hexachloroethane
1,1-dichloroethane
1,1,2-trichloroethane
1,1,2,2-tetrachloroethane
chloroethane
bis (2-chloroethyl) ether
2-chloroethyl vinyl ether (mixed)
2-chloronaphthalene
2,4,6-trichlorophenol
parachlorometa cresol
chloroform (trichloromethane)
2-chlorophenol
1,2-dichlorobenzene
1,3-dichlorobenzene
1,4-dichlorobenzene
3,3-dichlorobenzidine
1,1-dichloroethylene
1,2-trans-dichloroethylene
2,4-dichlorophenol
1,2-dichloropropane
1,2-dichloropropylene (1,3-dichloropropene)
2,4-dimethylphenol
2,4-dinitrotoluene
2,6-dinitrotoluene
1,2-diphenylhydrazine
ethylbenzene
fluoranthene
4-chlorophenyl phenyl ether
4-bromophenyl phenyl ether
bis (2-chlorisopropyl) ether
bis (2-chloroethoxy) methane
methylene chloride (dichloromethane)
methyl chloride (chloromethane)
methyl bromide (bromomethane)
bromoform (tribromomethane)
dichlorobromomethane
chlorodibromomethane
hexachlorobutadiene
hexachlorocyclopentadiene
isophorone
naphthalene
nitrobenzene
nitrophenol
2-nitrophenol
4-nitrophenol
2,4-dinitrophenol
4,6-dinitro-o-cresol
N-nitrosodimethylamine
N-nitrosodiphenylamine

N-nitrosodi-n-propylamine
pentachlorophenol
phenol
bis (2-ethylhexyl) phthalate
butyl benzyl phthalate
di-n-butyl phthalate
di-n-octyl phthalate
diethyl phthalate
dimethyl phthalate
benzo (a) anthracene
(1,2-benzanthracene)
benzo (a) pyrene
(3,4-benzopyrene)
3,4-benzofluoranthene
benzo (k) fluoranthane
(11, 12-benzofluoranthene)
chrysene
acenaphthylene
anthracene
benzo (ghi) perylene
(1, 12-benzoperylene)
fluorene
phenanthrene
dibenzo (a,h) anthracene
(1,2,5,6-dibenzanthracene)
indeno (1,2,3-cd) pyrene
(2,3-o-phenylenepyrene)
pyrene
tetrachloroethylene
toluene
trichloroethylene
vinyl chloride (chloroethylene)
aldrin
dieldrin
chlordane (technical mixture & metabolites)
4, 4'-DDT
4, 4'-DDE (p, p'-DDX)
4, 4'-DDD (p, p'-TDE)
Alpha-endosulfan
Beta-endosulfan
endosulfan sulfate
endrin
endrin aldehyde
heptachlor
heptachlor epoxide
Alpha-BHC
Beta-BHC
Gamma-BHC (lindane)
Delta-BHC
PCB-1242 (Arochlor 1242)
PCB-1254 (Arochlor 1254)
PCB-1221 (Arochlor 1221)
PCB-1232 (Arochlor 1232)
PCB-1248 (Arochlor 1248)
PCB-1260 (Arochlor 1260)
PCB-1016 (Arochlor 1016)
toxaphene
2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD)

Dischargers may be exempt from conducting routine monitoring for TTO if they certify that toxic organics are not used in the facility or are controlled through a toxic organics management plan. The certification statement that should be used is found in 40 CFR 433.12(a). If an exemption is granted, the discharger must submit a toxic organics management plan that specifies the toxic organic compounds used, disposal method, and spill-prevention measures. Dischargers must still conduct TTO monitoring for the BMR and the ninety-day final compliance report.

Total Metals is defined as the sum of the concentration or mass of copper, nickel, chromium (total), and zinc.

If monitoring is necessary to measure compliance with the TTO standard, the industrial discharger may be allowed to analyze only for those pollutants that would reasonably be expected to be present in the discharge.

Cyanide monitoring must take place after cyanide treatment and before dilution with other wastestreams unless an adjustment is made to account for the dilution ratio of the cyanide wastestream flow to the effluent flow. Also, if an agreement is made between the discharger and the Control Authority, the amenable cyanide (Cyanide A) limit may apply instead of the total cyanide (Cyanide T) limit.

SIC CODES AFFECTED

EPA has not yet identified specific SIC codes that will be affected by the Metal Finishing standards. However, if a plant discharges wastewater from one of the processes listed above, the standards apply except as indicated on page 2 of this summary. If there are any questions, contact EPA or the Control Authority.

PRETREATMENT STANDARDS FOR EXISTING SOURCES

Pollutant or Pollutant Property	Maximum for Any One Day (mg/l)	Monthly Average Shall Not Exceed
Cadmium	0.69	0.26
Chromium	2.77	1.71
Copper	3.38	2.07
Lead	0.69	0.43
Nickel	3.98	2.38
Silver	0.43	0.24
Zinc	2.61	1.48
Cyanide, T	1.20	0.65
Cyanide, A	0.86	0.32
TTO*	2.13	--

PRETREATMENT STANDARDS FOR NEW SOURCES

Pollutant or Pollutant Property	Maximum for Any One Day (mg/l)	Monthly Average Shall Not Exceed
Cadmium	0.11	0.07
Chromium	2.77	1.71
Copper	3.38	2.07
Lead	0.69	0.43
Nickel	3.98	2.38
Silver	0.43	0.24
Zinc	2.61	1.48
Cyanide, T	1.20	0.65
Cyanide, A	0.86	0.32
TTO	2.13	--

*The interim TTO limit for existing sources is 4.57 mg/l, which is in effect from June 30, 1984, until February 14, 1986. On February 15, 1986, the final TTO limit of 2.13 mg/l becomes effective.

4. GUIDANCE FOR THE PREPARATION OF A TOXIC ORGANIC MANAGEMENT PLAN

As previously discussed, one alternative to routine TTO monitoring is the preparation of a toxic organic management plan (TOMP). This option is available to regulated industrial users in the Electroplating, Metal Finishing, and Electrical and Electronic Components (both Phase I and Phase II) categories.

A TOMP must specify the toxic organic compounds used, the method of disposal used (instead of discharge into wastestreams), and procedures for assuring that toxic organics do not routinely spill or leak into wastewater discharged to the POTW. Guidelines for preparation of a TOMP are presented below as four basic steps:

Step 1 - Process engineering analysis

A process engineering analysis should be conducted to determine the source and type of toxic organic compounds found in a facility's wastewater discharge, including sources and compounds that could reasonably be expected to enter the wastewater in the event of spills, leaks, etc., based on the type of operations conducted at a particular plant. Such an analysis should be based on the results of one or more analyses of the plant's wastewater for the toxic organic pollutants which are included in the definition of TTO for that industrial category and which can reasonably be expected to be present (see TTO monitoring guidance). The process engineering analysis should include:

a. An examination of published reports on the specific industry;

b. A water flow diagram to identify all possible wastewater sources;

c. A list of raw materials used in the industrial processes, including chemical additives, water treatment chemicals and cleaning agents, and the wastewater stream that each regulated toxic organic could potentially enter;

d. Comparison of the toxics found in the effluent with the list of raw materials and selection of the most probable wastewater source;

e. Evaluation of the toxics found in the effluent, but not on the raw materials list and determination of those formed as reaction products or by-products;

f. Examination of sources such as equipment corrosion or raw materials' impurities that could result in release to wastewaters of toxic organic pollutants.

(2)

Step 2 - Pollutant control evaluation

An evaluation should be made of the control options that could be implemented to eliminate the toxic compound(s) or the source or potential source of toxic organic compound introduction to the treatment system. This may include in-plant modifications, solvent or chemical substitution, partial or complete recycle, reuse, neutralization, and operational changes. The analysis should be conducted on a case-by-case basis and will often result in one or more feasible options to control each soure or potential source of toxic pollutant discharge. Finally, evaluation of the available control options, including the advantages and disadvantages of each, may lead to a decision of whether a TOMP is a feasible alternative to TTO monitoring.

Step 3 - Preparation of Toxic Organic Management Plan

A toxic organic management plan should include the following items at a minimum:

a. A complete inventory of all toxic organic chemicals in use or identified through sampling and analysis of the wastewater from regulated process operations (organic constituents of trade-name products should be obtained from the appropriate suppliers as necessary);

b. Descriptions of the methods of disposal other than dumping used for the inventoried compounds, such as reclamation, contract hauling, or incineration;

c. The procedures for ensuring that the regulated toxic organic pollutants do not spill or routinely leak into process wastewaters, floor drains, non-contact cooling water, groundwater, surface waters (i.e., Spill Prevention, Control, and Countermeasures (SPCC) Plan) or any other location which allows discharge of the compounds; and

d. Determinations or best estimates of the identities and approximate quantities of toxic organic pollutants used as well as discharged from the regulated manufacturing processes. Compounds present in wastestreams that are discharged to sanitary sewers may be a result of regulated processes or disposal, spills, leaks, rinse water carryover, air pollution control, and other sources.

(3)

Step 4 - Submission of Toxic Organic Management Plan and Certification Statement

The TOMP should be submitted to the Control Authority at the time the baseline monitoring report is required if the IU's initial election is to choose this option. Alternatively, an IU may submit a TOMP at any later time and request that TTO monitoring requirements be discontinued upon approval and implementation of the TOMP. A prerequisite for use of this certification approach is a fully approved, implemented, and ongoing toxic organic management plan. In addition, a certification statement must be included at the time of submission of the TOMP and with each subsequent IU report (i.e., semi-annual compliance report). It must be signed by an officer of the company or manager responsible for overall plant operations. A statement such as the following should be required.

> "Based on my inquiry of the person or persons directly responsible for managing compliance with the TTO limitations, I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last report. I further certify that this facility is implementing the toxic organic pollutant management plan submitted to the Control Authority on (date to be specified).

_____ (date)

_____ (officer)

If the user is unable to make the above certification statement, the user should notify the Control Authority sixty days (60) prior to the due date for filing the compliance reports. At that time, the Control Authority should determine the appropriateness of requiring sampling and analysis for specific toxicants and notify the user accordingly.

A sample Toxic Organic Management Plan and certification statement are included as Appendix D.

(4)

APPENDIX D

TOXIC ORGANIC MANAGEMENT PLAN
ABC REFRIGERATION CORPORATION
HIGH POINT PLANT

I. Description of Facilities and Solvent Use

A. Process Description

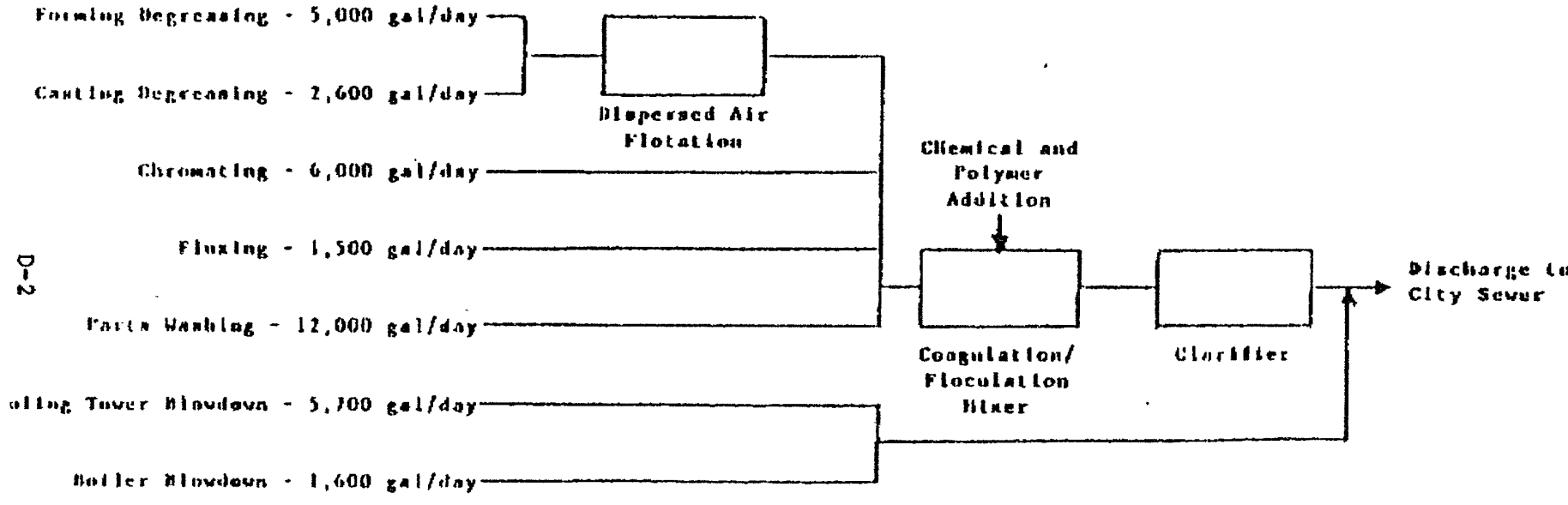
The ABC Refrigeration Corporation, High Point Plant, manufactures automotive radiators, condensers, and compressors from metal coils and metal castings manufactured by other suppliers. The forming and assembly processes include metal forming, degreasing, chromating, and brazing in preparation for painting and final assembly. The metal castings are machined, washed, assembled, and degreased prior to final assembly.

Wastewater types and volumes and the current wastewater treatment system are depicted in Figure 1. The primary sources of process wastewater are the degreasing, chromating, fluxing, and parts washing operations. Other sources of wastewater are cooling tower blowdown and boiler blowdown. Wastewater from the degreasing operations is treated by dispersed air floatation for oil and grease removal and then discharged to a combined wastestream containing the wastewater from all other sources. The combined wastestream is then treated by coagulation/flocculation with chemical and polymer addition for solids and metals reduction. The treated effluent is discharged to the city sewer system.

B. Identification of Toxic Organic Chemicals Entering the Plant Wastewaters

1. Chemical Analysis of Treated Wastewaters

Samples were taken of the plant's treated wastewaters for analysis for the 110 toxic organics regulated under the metal finishing categorical pretreatment standards. Samples collected were 24-hour flow proportioned composite samples for acid extractible and base/neutral compounds. Grab samples for volatile organics were taken every four hours and were composited before analysis. Samples were taken over a period when all production lines were operating at peak production rates. Samples were analyzed by gas chromatography with compound identification and quantification by mass spectrophotometer (GC/MS). EPA procedures 624 and 625 were followed for GC/MS analysis. Toxic organic compounds detected at concentrations greater than 0.01 mg/l are listed in Table 1.



D-2

FIGURE 1

WASTEWATER GENERATION AND TREATMENT
ABC REFRIGERATION CORPORATION HIGH POINT PLANT

(6)

Table 1

Compound	Concentration (mg/l)
1,1,1-Trichloroethane	1.320
Napthalene	0.210
Chloroethane	0.131
Benzene	0.532
Phenol	0.681

2. Identification of Solvents Used in Manufacturing Operations

a. Greasefree is a degreasing solvent used in the forming process. Greasefree's principle ingredient is 1,1,1-trichloroethane. We have contacted the manufacturer of Greasefree, Doubt Chemical Corporation, who informs us that their analysis of Greasefree indicates that no other priority toxic pollutants are contained in Greasefree. Doubt's letter confirming its analysis is enclosed as Attachment 1.

b. Rinsewash is a degreasing solvent used in the metal castings process. Rinsewash is a multicomponent solvent we purchase from Pound Chemical Corporation. At our request Pound has analyzed Rinsewash and found it contains napthalene, benzene, and phenol. Pound represents that no other toxic organic pollutants were identified in its analysis of Rinsewash. Pound's letter documenting its analysis is enclosed as Attachment 2.

c. Rustaway is a corrosion inhibitor used during the metal castings washing process to prevent rust formation. We buy Rustaway from the Exit Chemicals Corporation. The primary ingredient of Rustaway is carbon disulfide. Exit refused our request for a chemical analysis of Rustaway. We, therefore, submitted an aliquot of Rustaway to Whatsinit Laboratories, Inc. for analysis. Whatsinit's report is enclosed as Attachment 3 and documents that Rustaway contains chloroethane. No other toxic organics were detected.

3. Identification of Other Potential Sources of Toxic Organic Pollutant Introduction to the Wastewater Treatment System

a. Durable Paints are used to finish the forming process items. Although not detected in the wastewater analysis, Durable Paints are known to contain toluene. The floor drains in the forming process painting area discharge to the wastewater treatment system. Therefore, any spilled paint would enter the process wastewater treatment system.

b. Degreasing Areas - Floor drains in both degreasing areas similarly are connected to the main wastewater system. Therefore, spills of degreasing agents could enter the treatment system.

c. Solvent Storage Areas - Solvents, paints, and corrosion inhibitors are stored in bulk quantities in four different areas of the plant--the two degreasing areas, the washing area, and the painting area. Spills could occur by accidental dumping, spillage during routine transfer, etc. Such spills would enter the wastewater treatment system through the floor drains.

II. Description of Control Options Explored

A. Solvent Substitution

For the degreasing, corrosion inhibitor, and painting sources of toxic organics, ABC explored the feasibility of substituting another product that does not contain toxic organic materials. Obviously, this would be the most effective manner of eliminating toxic organic discharges both from process operations and from potential spillage into floor drains. ABC obtained samples of degreasing agents, corrosion inhibitors, and paints that do not contain toxic organics from vendors and conducted pilot tests of their effectiveness. ABC concluded after these tests that the alternative degreasing agents and paints could not be used without adversely affecting the process and final products. The alternative degreasing agents were not nearly as effective as the ones currently used and, therefore, would impair the effectiveness of subsequent operations. Alternative paints could not be applied evenly to our products. One alternative corrosion inhibitor, Chromisorb, appears to be an acceptable alternative to the Rustaway and contains the toxic metals zinc and chromium. Thus, the option of eliminating chloroethane discharges by substituting Chromasorb for Rustaway as a corrosion inhibitor was considered.

B. Process Modifications

The major alternative to the substitution of degreasing agents is to institute changes in the degreasing process that do not result in wastewater discharge. This would be accomplished by wiping parts rather than rinsing them. After a thorough wipedown, parts would be air dried in an area under a vacuum hood. The vacuum hood is integrated with the facility's air pollution control devices. Any material used for wiping would, of course, be treated as a hazardous material. It would be transferred to drums and disposed of to a licensed disposer or reclaimer. Thus, process changes could be made that would eliminate discharge of process wastewaters containing 1,1,1-trichloroethane, napthalene, benzene, and phenol. Solid waste generation would, of course, increase.

(8)

C. Segregated Drain System

Spills of toxic organics could be eliminated from the process wastewater stream if a segregated floor drain system were constructed. ABC investigated this option and found that, because of the location of some existing drain pipes, such modification would require a major disruption of the plant and would cost far more than routine TTO monitoring. Moreover, such an option would create a significant additional wastewater treatment problem for those cases in which drained water is not contaminated by spilled material.

D. Sealing Floor Drains

Introduction of toxic organics to wastewaters through floor drains could be eliminated if floor drains were sealed. In the process areas this option is not feasible because of State safety requirements. In storage areas, however, such an option may be practical.

E. Installing Sumps in the Floor Drains

Under this option sumps would be installed such that prior to entering the drain, floor waters would pass through a sump or holding tank. The sump would be as large as the largest spill of solvent reasonably expected plus a 10 percent freeboard allowance. Thus, if a solvent spilled, the discharge to the drain would be turned off. The solvent could, then, collect in the sump and be recovered.

III. Toxic Organic Management Plan

As a result of the above analyses, ABC believes that all of its toxic organic pollutant discharges can be controlled by a toxic organic management plan in lieu of routine toxic organic monitoring.

A. Solvent Substitution

Discharge of chloroethane will be eliminated by use of a substitute rust inhibitor. ABC will discontinue use of Rustaway as a rust inhibitor. Instead, ABC will use Chromasorb to prevent rust formation in its metal casting line. Chromasorb is a zinc-chromate rust inhibitor that can be used to prevent rust formation in place of Rustaway. Chromasorb contains the toxic metals chromium and zinc. The existing wastewater treatment system, however, is designed to remove metallic pollutants. By adjustment of the chemical and polymer feed, ABC anticipates that it can maintain current levels of metals discharge while eliminating chloroethane discharges.

(9)

B. Process Changes

ABC will eliminate discharge of process wastewaters containing 1,1,1-trichloroethane, napthalene, benzene, and phenol by instituting changes in the degreasing process. Solvent cleaning will be accomplished by immersion and manual wipedown. Parts will be allowed to air dry in an area covered by a vacuum hood prior to any water washing. Materials used for wipedown will be collected in drums, sealed, stored in a secure area and transferred to Usitagin Reclamation Company. Usitagin is a licensed hazardous waste disposer.

C. Solvent Storage Procedures

Storage procedures for all solvents containing toxic organic compounds will be changed. Storage will be in a central location for all such materials, including paints. The storage area will be diked to contain a volume equal to the largest container stored, 55 gallons, plus 50 percent. There will be no floor drains in this area.

All incoming containers of solvents or paints will be labeled upon receipt with the following information:

```
**********************************************************************
* Material Contains Regulated Organic Solvents                       *
*                                                                    *
* 1.  Use only in designated areas                                   *
*                                                                    *
* 2.  Do not permit this material to enter plant wastewater          *
*     stream                                                         *
*                                                                    *
* 3.  Dispose of only in designated and identified containers        *
*                                                                    *
**********************************************************************
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All in-plant usage containers will also be marked with the above information.

D. Installation of Sumps in Process Areas

In all process areas where materials containing toxic organic compounds are used, sumps will be installed prior to any floor drains. The sumps will be designed to allow rapid shut-off of flow to the drain and to hold a volume equal to the largest container of solvent used in that area plus ten percent.

E. Spent Solvent Disposal Practices

Spent solvents are collected in 55 gallon drums, sealed, and stored in an existing, secured storage area. The storage area contains no floor drains. ABC sells spent solvent to the Usitagin Reclamation Company.

(10)

F. Training

All personnel involved in degreasing, chromating, painting, and clean-up activities will receive instruction in the proper handling and disposal of solvents and clean-up materials in order to keep regulated toxic organics out of industrial wastewater. New employees will be trained in these procedures immediately. All personnel working in these activities are familiar with this toxic organic management plan and will follow the procedure established in that standard to eliminate regulated organics from entering the water wash system.

Training consists of classroom instruction which reviews the following:

1. The organic solvents and cleaners known to be in use at the plant and the areas in which they are used.

2. The location of lift stations and drains with emphasis upon the location of pretreatment sewer systems for each area in the plant.

3. The Toxic Organic Management Plan and the proper procedures for handling and disposing of the respective solvents.

G. Inspections

1. Degreasers, spray booths, and cleaning operations will be inspected routinely by the area supervisor to verify cleaning procedures and adherence to this Toxic Organic Management Plan to insure that TTO does not spill or leak into plant sewers.

2. Centrally located cleaning and solvent handling, reuse, and collection areas, as well as raw material and waste solvent storage areas, will be inspected weekly by a designated environmental representative to verify proper solvent storage, handling, and collection. A log of inspections and sign-off will be maintained by the designated environmental representative.

H. Implementation

All provisions of this plan will be fully implemented by April 1, 1984.

(11)

IV. Certification

"Based on my inquiry of the person or persons directly responsible for managing compliance with the TTO limitations, I certify that, to the best of my knowledge and belief, no dumping of concentrated toxic organics into the wastewaters has occurred since filing of the last report. I further certify that this facility is implementing this toxic organic pollutant management plan submitted to the Control Authority on January 2, 1984."

John Smith
Plant Manager
High Point Plant
Telephone: (617) 617-6176